

Calavera Hills Phase II
Habitat Conservation Area
(S031)

Annual Work Plan
October 2006 - September 2007

Prepared for:
U.S. Fish and Wildlife Service
California Department of Fish and Game
City of Carlsbad

Prepared by:



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I. INTRODUCTION AND SUMMARY

This work plan has been developed from the guidelines for goals and objectives set forth in the Calavera Hills Phase II Final Habitat Management Plan (HMP) dated October 2002 (Planning Systems 2002). This annual work plan includes management requirements outlined in the HMP for Calavera Hills Phase II and as agreed to by the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG), and additional management activities that the Center for Natural Lands Management (CNLM) feels are appropriate to protect and maintain the natural resources in perpetuity. CNLM holds conservation easements (since June of 2006) on the Calavera Hills Phase II Habitat Conservation Area (HCA) and performs or oversees the tasks identified in the HMP.

The purpose of this work plan is to identify the tasks and budget required to complete the management activities for the upcoming management year that will begin on October 1, 2006 and end on September 30, 2007. Unless otherwise stated, all tasks will be performed by CNLM's Area Manager, Markus Spiegelberg, CNLM's Preserve Manager, Jessica Vinje and CNLM's Assistant Preserve Manager, Patrick McConnell.

Summary of Tasks and Goals for the 2006-2007 Fiscal Year:

- Install signs and maintain existing fences
- Install three-strand smooth wire fence along the southern and western boundaries of Village H and in certain sections within Village H
- Install smooth wire fence around all of Village K where fence does not currently exist
- Prepare a brief write up explaining the duties of the CNLM at the Calavera HCA and provide this write-up to the Homeowners Associations (HOA) to include in the HOA newsletters
- Conduct focused surveys for Coastal California gnatcatcher (*Polioptila californica californica*) record and map observations of other sensitive avian species
- Monitor and control nonnative, exotic plants
- Develop study areas for native grassland habitat assessments
- Conduct focused sensitive plant mapping and surveys
- Conduct weekly patrol visits
- Remove trash as necessary
- Report and describe data collected and management actions taken on the HCA to the wildlife agencies and City of Carlsbad
- Provide an accounting of funds to be spent in the fiscal year

Appendix 1 (*2006-2007 Task Schedule*) identifies the approximate schedule of tasks for the upcoming fiscal year. Appendix 2 (*Annual Budget 2006-2007*) provides a financial summary for both staff time and costs for the year. The location of the HCA is shown in Appendix 3. The HCA is comprised of five parcels, commonly referred to as Village H, R, U, W, and X. See Appendix 3 for the location of each Village.

II. MANAGEMENT ACTIVITIES

The following sections identify and describe the activities to be performed during the 2006-2007 management year. Based upon the Property Analysis Record (PAR) developed by CNLM to outline long-term management tasks and costs, management activities for the HCA can be categorized into seven groups: Capital Improvements, Biological Surveys, Habitat Restoration, Public Services, Reporting, Office Maintenance, and Operations. Each of these categories will be discussed below.

A. CAPITAL IMPROVEMENTS

The installation of signs and fences will occur during this fiscal year:

- 1. Signing** CNLM signs will be posted at all of the major access points and along most of the perimeter to the HCA and a few other notable locations. Each sign explains that the HCA is a dedicated open space, and that OHV activity, dumping and shooting are prohibited.
- 2. Fencing** CNLM will install fencing along the southern and western portion of Village H using 3 strand smooth wire. We will also install a 3-stranded smooth wire fencing around all portions of Village K.

B. BIOLOGICAL SURVEYS

Biological monitoring activities at the HCA will follow items listed in the HMP. CNLM has modified monitoring tasks outlined in the HMP (as it was not prepared by CNLM) to adjust the task time lines and some of the tasks which it finds to be unnecessary at this time. Below is a description of the tasks that will be accomplished during the 2006-2007 fiscal year. In addition, Table 1 outlines all tasks that will be completed at the HCA and an associated time line for the next 6 years.

Monitoring during the next year includes focused surveys for coastal California gnatcatcher and sensitive plants and an analysis of the native grassland occurring in the HCA. All data will be entered or stored in a Geographic Information System (GIS) database. A brief description of monitoring activities outlined by taxa is provided below:

- 1. California Gnatcatcher & Avifauna Monitoring** We will conduct two to three focused surveys for coastal California gnatcatchers during the spring months and note other sensitive bird species.
- 2. Vegetation Sampling** The native grassland areas of the HCA support sensitive species such as the thread-leaved brodiaea. CNLM will assess the quality of this vegetation community to determine the cover and composition of native and nonnative plant species. Vegetation plots will be stratified throughout the

grassland areas and transects will be randomized within each plot. More detail of these activities will be provided in the annual report.

6. **Sensitive Plant Species** Surveys will occur for thread-leaved brodiaea, Palmer's grappling hook (*Harpagonella palmeri*), and California adolphia (*Adolphia californica*) during the 2006-2007 fiscal year. Other sensitive plants will be mapped, assessed and counted, if located.

Table 1
Schedule of Biological Monitoring Tasks

Monitoring task	Fiscal Year					
	2006/2007	2007/2008	2009/2010	2010/2011	2011/2012	2012/2013
Focused sensitive reptile surveys ¹		X			X	
Coastal California gnatcatcher surveys (including observations of other sensitive avian species)	X	X	X	TBD	TBD	TBD
Avifauna point counts ²		TBD	TBD	TBD	TBD	TBD
Native grassland vegetation community assessments	X	X	X			
Coastal sage scrub quantitative monitoring ³		X			X	
Thread-leaved brodiaea surveys	X	X	X	X	X	X
Other sensitive plant surveys	X					X

1. Focused reptile surveys will occur in lieu of installing and monitoring pitfall arrays. Pitfall arrays will not be installed since the HCA is heavily used by the public. In the experience of CNLM, these arrays would be vandalized.

2. The management plan specifies that avian point counts should occur annually. The actual time line for annual point counts will be determined in the future.

3. The management plan indicates that coastal sage scrub quantitative monitoring will occur during the first year and then every 5 years. CNLM is choosing to focus on the native grassland and thread-leaved brodiaea habitat during the first year and will initiate quantitative sage scrub surveys in the 2007-2008 fiscal year.

C. HABITAT RESTORATION AND MAINTENANCE

Most of the HCA's habitat is good quality, with little disturbance from nonnative species. There are nonnative exotic plants scattered throughout the HCA. CNLM will eradicate and control these species when they are located, such as the fennel (*Foeniculum vulgare*) patches located in

Village H that was treated during the 2005-2006 fiscal year. Several small areas in the HCA (i.e., in Village R) are infested with nonnative annual grasses and forbs. These areas have been noted and will be evaluated for habitat enhancement activities in the future.

D. PUBLIC SERVICES

Activities centering around public services include the patrolling of the HCA, consulting with neighbors about perimeter landscaping and responding to emergencies. However, other opportunities for public service will undoubtedly be forthcoming during the year with local groups and individuals interested in volunteering labor for HCA projects, and class field trips from local schools. Whenever possible management will try to accommodate these activities.

- 1. Patrols** Patrols will be performed approximately four times per month, and also during biological surveys or other HCA activities. Patrols include the routine maintenance of fences and signs and trash pick up. Observations of sensitive species, new human impacts, new weed infestations, and trash will be gathered during patrols as well.
- 2. Emergency Response** Staff time has been allocated from the current budget for response to emergencies on the HCA. Such emergencies could include response to wildfires, wildlife problems reported by neighbors and illegal trespass.

E. REPORTING

Reporting requirements include the management of the HCA's database/GIS system, the photo-documentation stations, and the production of various status reports to the City of Carlsbad, USFWS, CDFG and CNLM administration.

- 1. Database/GIS Management** Data derived from routine patrols and photo-documentation will be entered into and maintained in the HCA's existing database/GIS system. Additional databases will be established for the various biotic monitoring programs including the production of historical and current vegetation maps. Efforts will be made to coordinate and standardize database fields and parameters with other preserves. This task will be accomplished by a CNLM subcontractor, Cadre Environmental. Cadre will standardize all of the Calavera Hills GIS files/databases with all of the other CNLM GIS files/databases.
- 2. Photo-documentation Stations** Permanent photo-documentation stations were established in 2006 and photographs were labeled and stored. Photographs at these stations will be updated in 2009.
- 3. Reports**
 - a. Year-End/Agency Reports** A year-end report will be prepared by the preserve manager by early November of 2007 detailing the results of the year's

management activities. This report will include recommendations for the continuation of various activities for the following fiscal year and will be submitted to the City of Carlsbad, USFWS and CDFG as required under permit reporting conditions.

- b. Annual Work Plan** The annual work plan for the 2007-2008 fiscal year will be formulated by the end of the 2006-2007 fiscal year and will be based upon experiences during previous years' operations. This work plan will be submitted to the City of Carlsbad and USFWS and CDFG.

F. OFFICE MAINTENANCE

Preserve management will maintain offices in an organized manner to facilitate maximum efficiency. This section of the budget includes outlays for general office work, utilities, and telephones, among other items/tasks.

G. OPERATIONS

Operations include the training and professional growth of CNLM personnel, and inspection of the HCA by CNLM administration. Funds have been allocated in the current budget for the Preserve Managers to attend classes or seminars during the 2006-2007 year. Also included within this category of activity is the conduction of employee reviews.

III. WORKLOAD AND BUDGETS

A. SUPERVISION & STAFFING

The Area Manager will be supervised by CNLM's Director of Operations, Michael Stroud and Director of Conservation Science, Deborah Rogers. Tasks and hours will be coordinated by the Area Manager and approved by Mr. Stroud and Ms. Rogers. The Area Manager, Markus Spiegelberg will supervise the Preserve Manager, Jessica Vinje and the Assistant Preserve Manager, Patrick McConnell. In addition, hours have been allocated for a Ms. Rogers to assist with document reviewing and scientific research conducted on CNLM preserves.

B. BUDGETING

A budget of \$91,586 has been allocated for this fiscal year and is included here as Appendix 2. Every effort will be made by Preserve Management to allocate time and expenses according to this estimated budget.

IV. REFERENCES

Planning Systems, 2002. Calavera Hills Phase II Final Habitat Management Plan. October 2002.

IV. APPENDICES

Appendix 1

2006-2007 Task Schedule

Task	October- December 2006	January-March 2007	April to June 2007	July to September 2007
Nonnative Plant Removal	X	X	X	X
Coastal California Gnatcatcher Surveys		X	X	
Native Grassland Assessments			X	
Sensitive Plant Surveys		X	X	
GIS/Database			X	
Fencing/Signage	X	X	X	X
Patrolling	X	X	X	X
Reports				X
Public Outreach	X	X	X	

Appendix 2

Annual Budget 2006-2007

Section 8 - Initial & Capital Tasks and Costs

Property Title: Calavera Hills

Dataset: CA005

PAR ID: S031

12/15/2006

Budget: Annual Budget 2006-7

Task list	Specificaton	Unit	Number of Units	Cost / Unit	Annual Cost	Times Years	Total Cost
SITE CONSTRUCTION/MAINT.							
Project Planning	Supervise/coordinate APM	L. Hours	16.00	23.59	377.44	1.0	377.44
Project Planning	Supervise/coordinate AM	L. Hours	8.00	37.88	303.04	1.0	303.04
Fence - Installed	Barbed-wire, 3 strd.	Lin. Ft.	6,000.00	3.50	21,000.00	1.0	21,000.00
Fence	Barbed-wire, 3 strd	Lin. Ft.	1,000.00	0.12	120.00	1.0	120.00
Gate	Installed	Item	4.00	500.00	2,000.00	1.0	2,000.00
Gate	Maintenance supplies	Item	0.80	334.67	267.74	1.0	267.74
Lock	Padlock	Item	4.00	21.20	84.80	1.0	84.80
Sub-Total							24,153.02
BIOTIC SURVEYS							
Project Management	Supervise/coordinate AM	L. Hours	8.00	37.88	303.04	1.0	303.04
Project Management	Supervise/coordinate PM	L. Hours	8.00	30.62	244.96	1.0	244.96
Project Management	Supervise/coordinate APM	L. Hours	8.00	23.59	188.72	1.0	188.72
Plant Ecologist	Sensitive plants PM	L. Hours	30.00	30.62	918.60	1.0	918.60
Plant Ecologist	Grassland assessment PM	L. Hours	20.00	30.62	612.40	1.0	612.40
Plant Ecologist	Grassland assessment APM	L. Hours	20.00	23.59	471.80	1.0	471.80
Ornithologist	CAGN surveys AM	L. Hours	20.00	37.88	757.60	1.0	757.60
Science Director	Planning and Review	L. Hours	20.00	45.00	900.00	1.0	900.00
Sub-Total							4,397.12
HABITAT MAINTENANCE							
Exotic Plant Control	RECON spray fennel	L. Hours	32.00	32.00	1,024.00	1.0	1,024.00
Exotic Plant Control	PM removal	L. Hours	22.00	30.62	673.64	1.0	673.64
Exotic Plant Control	Herbicide	Gal.	5.00	60.00	300.00	1.0	300.00
Exotic Plant Control	APM removal	L. Hours	60.00	23.59	1,415.40	1.0	1,415.40
Mower, Tractor	Boom Spray in Village H	C. Hours	8.00	75.00	600.00	1.0	600.00
Sub-Total							4,013.04
PUBLIC SERVICES							
Patrolling	Patrol AM	L. Hours	25.00	37.88	947.00	1.0	947.00
Patrolling	Patrol PM	L. Hours	35.00	30.62	1,071.70	1.0	1,071.70
Patrolling	Patrol APM	L. Hours	160.00	23.59	3,774.40	1.0	3,774.40
Trail	Eagle Project	Item	1.00	750.00	750.00	1.0	750.00
Sign, Aluminum	Signs and posts	Item	30.00	25.00	750.00	1.0	750.00
Interpretive Literature	Copy	Page	500.00	0.12	60.00	1.0	60.00
Community Outreach	Meetings/nature walks APM	L. Hours	20.00	23.59	471.80	1.0	471.80
Sub-Total							7,824.90

Task list	Specificaton	Unit	Number of Units	Cost / Unit	Annual Cost	Times Years	Total Cost
GENERAL MAINTENANCE							
Other	Dump Fees	Each	3.00	50.00	150.00	1.0	150.00
Sub-Total							150.00
REPORTING							
Database Management	Data Input APM	L. Hours	8.00	23.59	188.72	1.0	188.72
GIS/CAD Management	Data Management APM	L. Hours	8.00	23.59	188.72	1.0	188.72
GIS/CAD Management	Cadre	Item	1.00	1,053.00	1,053.00	1.0	1,053.00
Annual Work Plan	Plan and PAR Budget APM	L. Hours	8.00	23.59	188.72	1.0	188.72
Annual Work Plan	Plan and PAR Budget AM	L. Hours	8.00	37.88	303.04	1.0	303.04
Agency Report	Annual Report APM	L. Hours	35.00	23.59	825.65	1.0	825.65
Agency Report	Annual Report AM	L. Hours	10.00	37.88	378.80	1.0	378.80
Sub-Total							3,126.65
OFFICE MAINTENANCE							
Administrative	Operations AM	L. Hours	8.00	37.88	303.04	1.0	303.04
Administrative	Operations PM	L. Hours	8.00	30.62	244.96	1.0	244.96
Administrative	Operations APM	L. Hours	35.00	23.59	825.65	1.0	825.65
Preserve Office	Rent	Year	0.27	5,270.00	1,422.90	1.0	1,422.90
Telephone Charges, Annual	Phone Charges	Year	0.27	3,960.00	1,069.20	1.0	1,069.20
Office Supplies, Year	Supplies	Person	0.27	2,000.00	540.00	1.0	540.00
Computer, PC & Monitor	Computers and peripherals	Item	0.50	2,000.00	1,000.00	1.0	1,000.00
Sub-Total							5,405.75
FIELD EQUIPMENT							
Vehicle	Small pickup	Item	0.30	27,888.96	8,366.69	1.0	8,366.69
Vehicle	Mileage	Mile	1,700.00	1.18	2,006.00	1.0	2,006.00
Power Tools	Misc. Tools	Item	0.27	500.00	135.00	1.0	135.00
Uniforms	Specification Unif. Allowance	Item	0.30	61.35	18.41	1.0	18.41
Sub-Total							10,526.10
OPERATIONS							
Audit	CPA Audit	Item	1.00	53.41	53.41	1.0	53.41
Insurance	General	Fee	1.00	348.84	348.84	1.0	348.84
Supervisor Site Visit	Site visits & Legal	L. Hours	10.00	45.00	450.00	1.0	450.00
Employee Training	Retreat expense	Item	0.27	1,373.00	370.71	1.0	370.71
Conferences	Conferences	Item	0.27	500.00	135.00	1.0	135.00
Other	Vacation, sick, retreat AM	L. Hours	86.00	37.88	3,257.68	1.0	3,257.68
Other	Vacation, sick, retreat PM	L. Hours	54.00	30.62	1,653.48	1.0	1,653.48
Other	Vacation, sick, retreat APM	L. Hours	54.00	23.59	1,273.86	1.0	1,273.86
Other	BioOne	Item	1.00	6.02	6.02	1.0	6.02
Sub-Total							7,549.00
Property Analysis Record Ver. 2.07.e 10/23/2003 (C) 1999 - 2003 Center for Natural Lands 425 E. Alvarado St., Suite H, Fallbrook, CA 92028-2960							
Sect.8 Page 2							

Task list	Specificaton	Unit	Number of Units	Cost / Unit	Annual Cost	Times Years	Total Cost
CONTINGENCY & ADMINISTRATION							
Contingency							6,714.56
Administration							17,726.43
Sub-Total							24,440.99
Total							91,586.57

Appendix 3

HCA Location Map



Calavera Hills Phase II Habitat Conservation Area




 Property Boundary

Figure 1

